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ABSTRACT

This publication presents information on the history, operations, and accomplishments of the Educational Facilities Laboratories (EFL), a nonprofit corporation established to help schools and colleges maximize the quality and utility of their facilities, stimulate research, and disseminate information to facility planners. Included are descriptions of EFL's funding, guiding principles, leadership, and operations over its 28-year history. It also explores EFL's aggressive philanthropic philosophy and innovative approaches to school project funding, its development of the open plan approach that influenced basic school design in the 1960s and early 1970s, and the school construction systems and development team that created a standardized method for constructing school buildings. A discussion about EFL publications and a list of these publications and EFL films are provided. (Contains 18 references.) (GR)

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The Educational Facilities Laboratories (EFL): A History

National Clearinghouse for Educational Facilities

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National Clearinghouse for Educational Facilities
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The Educational Facilities Laboratories (EFL), a nonprofit corporation established by the Ford Foundation, opened its doors in 1958 under the direction of Harold B. Gores, a distinguished educator. Its purpose was to help schools and colleges maximize the quality and utility of their facilities, stimulate research, and disseminate information useful to those who select sites, plan, design, construct, modernize, equip, and finance educational structures and the tools therein.

Over its 28-year existence, EFL spurred innovation in school architecture by sponsoring research projects and programs, holding conferences, and awarding grants to thousands of school districts, colleges, and nonprofit organizations throughout the United States and Canada. Committed to spreading the word of such advancement, EFL distributed more than two million copies of its publications on research, experimentation, and emerging trends.

EFL's Beginnings

EFL emerged at an opportune time. The baby boom that followed World War II brought with it a severe shortage of schools. Projections made in the early 1950s showed that school capacity would be exceeded by 2.3 million children by 1958 and that $40 billion would be required for school and college construction between 1958 and 1968.

The American Institute of Architects responded to this situation by forming the Committee on School Buildings in 1953. The committee included representatives from the U.S. Office of Education, the American Association of School Administrators, the National Education Association, the National Association of Chief State School Officers, and the National Council on School House Construction. In 1956, the committee, joined by a similar working group from the Teachers College of Columbia University, requested funds from the Ford Foundation to study school facilities.

Alvin C. Eurich and Clarence H. Faust of the Ford Foundation's Fund for the Advancement of Education and others working in the foundation's education division were receptive to this idea. According to James Armsey, who wrote a retrospective commentary on EFL in 1976, "they had been searching for some means of solidifying and institutionalizing ways of ridding the education establishment of its attachment to forms and methods that they believed were hamstringing the teaching-learning process, proposing that it was easier to change buildings and what went into them than to change people" (Armsey 1976:4). Rather than Balkanize research activities according to the particular concerns of the different committees, the foundation chose to mount a comprehensive research undertaking that would encompass the full range of concerns; and further, determined to have this work be conducted by a single organization. To that end, the Ford Foundation established a separate nonprofit corporation, the Educational Facilities Laboratories.

Funding Sources

From 1958 through 1976, the Ford Foundation provided $25.5 million to support EFL activities. Beginning in 1970, EFL sought collaborative funding to augment its basic Ford Foundation support. By 1976, EFL had successfully transformed itself into a self-supporting organization, deriving its revenue from grants and contracts offered by foundations, government agencies, corporations, nonprofit organizations, school districts, and colleges and universities.

In 1979, EFL merged with the Academy for Educational Development, a nonprofit organization that addressed human development needs through education, communication, and information. Through 1986, while retaining its name, EFL operated as a division of the academy and redirected and broadened its purposes, realigned its programs, and evolved into an internationally recognized consulting organization covering all phases of education planning and management. EFL primarily served the education community but also won commissions from a broad range of community organizations, art groups, and cultural institutions, and from business and industry.

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Guiding Principles

Milton C. Mumford, then president of Lever Brothers and EFL's first board chairman, recalled that there were two guiding principles in the beginning: "to concentrate on things we could do something about, and to strike a balance between what the educational establishment wanted and what it didn't know it wanted but needed" (Armsey 1976:7).

Although EFL focused its energies on the structures of education and the tools of the trade, those who created EFL had strong beliefs about what was right and wrong with education and about what ought to be. Form was to follow not only function but philosophy as well. "Our job," recounts Ruth Weinstock, EFL research associate and later vice president, "didn't just deal with the things of education, but with the feeling of the schoolhouse as a whole, as a total environment that could deeply affect learning and growth" (Weinstock 1999).

According to Ben E. Graves, an EFL project director, EFL based its program on the principles that "facilities should be more sensitively designed to the new needs of education in a period of rapid, revolutionary change in instruction and social conditions" and "intelligent economy should be encouraged wherever, whenever, and however it could be" (Graves 1993:viii).

Leadership

From its start and throughout its duration, EFL was fortunate in its leadership. "It was controlled by people possessed not only of ideas but also of the energy to move, the knowledge to know where to move, and the wisdom to know how to move" (Armsey 1976:13).

Harold B. Gores served as EFL president for 18 years and is given greatest credit for its success. Gores came to EFL from his position as superintendent of schools for Newton, Massachusetts, where his innovations had already caught the educational community's attention. Described as the "facilities gadfly of American education," he was a "remarkably articulate, hard driving, deeply committed font of ideas and vigor" (Armsey 1976:14). One colleague said this of Gores:

> When he became head of EFL, he brought with him a belief in the participatory process, a creative urge he never lost, and a reputation as one of the half-dozen secondary school people in the country with a virtually faultless record in program, plant, and personnel matters. His chief characteristics were openness, a willingness to experiment, and a capacity to differentiate between a fad and a legitimate, defensible, potentially lasting new practice (Armsey 1976:15).

Jonathan King, vice president and treasurer, was EFL's first employee, having been recruited from the Fund for the Advancement of Education in 1958. Although best known for his work in developing building systems, he knew architecture, art, and design and had a profound understanding of their connection to the processes of education. King was an experienced publisher and an exacting editor with a high regard for clarity and a low tolerance for jargon. As director, editor, and sometimes writer, he developed the information program that spread the word about EFL's work. As noted in King's obituary, he was a master of the one-liner, always able to characterize complex subjects simply. Once asked if systems construction was in some way connected with fast-track scheduling, he replied, "No, they are separate, like nuts and bolts."

Gores and King were astute in identifying matters that required research or experimentation, and they found the architects, designers, educators, and venues best suited to take them on. "They ran the shop together," said Ruth Weinstock, adding, "There was little bureaucracy. Anyone who walked through the door with a promising idea was heard, and if it was a good idea, received support."

Weinstock took over as director of the publications program in August 1970 when King left EFL. Until her own departure from EFL in 1982, she was responsible for many of EFL's major reports.

After the retirement of Harold Gores in 1976, Alan C. Green, architectural educator, took over as EFL's president. Under Green, EFL expanded its scope and became a division of the Academy for Educational Development, a nonprofit services and consulting organization. The academy's founder and CEO was Alvin C. Eurich, a former president of Stanford University and an officer of the Ford Foundation. Throughout EFL's life span, Eurich was a driving force in the organization and he exerted a profound influence as an EFL board member. In its final years, the organization was headed by Ben Graves, head of EFL's office in Austin, Texas, while Paul Abramson,

a former EFL consultant, held down the New York City office in its last year.

Operations

EFL headquarters was located in New York City. However, in 1959, to widen its contact with educators and designers, EFL established a regional center directed by James D. MacConnell at Stanford University's School Planning Laboratory, and, in 1962, another center at the University of Tennessee's School Planning Laboratory. In the 1970s, EFL opened an office in Austin, Texas, and supported three project centers—the Building Systems Information Clearinghouse at Stanford University, the New Life for Old Schools program in Chicago, Illinois, and the American Association of Junior Colleges in Washington, D.C. EFL also operated several building systems projects across the country, including School Construction Systems Development (SCSD) and University Residential Building Systems (URBS) in California; Schoolhouse Systems Program (SSP) in Florida; Study of Educational Facilities (SEF) in Toronto; and Recherches en Amenagements Scolaires (RAS) in Montreal.

Aggressive Philanthropy

EFL, King explained, "did not just sit around and wait for people to come in and ask for something. It figured out what ought to be done and got on with it." King termed the EFL approach "aggressive philanthropy" (Armsey 1976:9). Graves believed EFL was successful because it was independent, not tied to any interest group:

> We had only to answer to our board, which made certain we made grants that produced results that were truly experimental, would advance the knowledge of facilities planning and building, would be applicable to other institutions facing the same perplexing conditions, and would have sufficient leverage to bring brains and money to work, solving the facilities questions besetting schools and colleges (Graves 1993:viii).

By the early 1960s, EFL had become the place to plant an idea and the place to call or write or visit if one had a problem or needed a little money to legitimize an idea. According to architect Richard J. Passantino, who wrote several EFL publications in the late 1960s and early 1970s, EFL was always good about investing $5,000 in hopes of hitting pay dirt. "If you had an innovative idea, Gores was glad to talk with you. 'If I can kick it, I can fund it,' Gores would often say." Passantino also recalled Alan Green's often repeated admonition to EFL grant recipients to be beyond reproach on their spending behavior (Passantino 1999).

EFL was able to get tremendous mileage from relatively small amounts of money. As one client put it, "they did for 5,000 to 10,000 dollars what cost others 50,000 to 100,000 dollars; they really knew how to squeeze every dime out of every buck" (Armsey 1976:9). A school administrator described how EFL worked:

> EFL gathered the "top people," hired them for a day, put them in a room at 9 A.M., kept them there until 5 or 6 P.M.; had lunch brought in, picked their brains about a draft manuscript sent to them in advance, and made them produce a second draft before they went home. They were paid 150 dollars for the day as contrasted with the 500 to 600 dollars most of them would have received from anyone else for the same work (Armsey 1976:15).

Innovations

EFL stimulated or accelerated innovations by investing the risk capital required to develop new and promising solutions. Using small grants, EFL sent school administrators and architects around the country and abroad to see what others were doing. It sponsored conferences, set up forums, provided consultants to school districts, conducted studies, prepared papers, produced films, and brought professional services to workshops. Grants were made available for study and research. The results of these efforts were published and disseminated widely.

Funding in EFL's early years tended to support elementary and secondary school projects. By 1963, when it published *Bricks and Mortarboards: A Report on College Planning and Building*, EFL developed projects designed to meet some of the problems posed by the enrollment boom in colleges and universities. By the late 1970s, EFL contracts focused on projects relating to enrollment decline and surplus school spaces. Architect William Brubaker highlights the following research activities:

> EFL, working with educators, architects, and suppliers, (1) studied and promoted the use of folding and moveable walls to gain the advantages of flexible space, (2) investigated and

> funded examples of "systems" building components to build schools faster, cheaper, and better, (3) explored the use of new media, especially television, and studied how they might influence school design, and (4) encouraged school systems to try new organizational methods such as team teaching, new curricula, and new relationships within their communities (Brubaker 1998:20).

EFL also directed its grants to support new kinds of schools for the inner city, including the introduction of middle schools. Other innovations included joint use and mixed occupancy of buildings, convertible dormitories, quieting the schoolhouse through carpeting, cooling it through air conditioning, improving school furniture design, developing new products such as artificial turf and soundproof moveable partitions, using laminates, employing the geodesic dome, and using flexible synthetic fabrics in large spaces for sports facilities. A constant theme applied across all educational levels was the design of sensitive, humane environments that would express respect for the users.

The focus of EFL's last 10 years, from 1977 to 1986, shifted to examining evolving enrollment patterns and facility needs stemming from demographic changes and social trends that would bring more mature students and even elderly students into higher education. Other issues included recycling and converting school buildings, developing community school centers, increasing citizen participation in planning processes, preparing for technological advances in communications and education, and conserving energy through more efficient building design and management.

Most significant among its accomplishments was EFL's ability to bring architects, designers, fabricators, moguls of the construction industry, educators, and school personnel to one table for the express purpose of improving the function and quality of school facilities. The concept and report entitled *Educational Change and Architectural Consequences* was a driving force behind many EFL projects.

Open Plan Schools

One of EFL's innovations was the development of the open plan, a concept that influenced the basic design of thousands of schools during the 1960s and early 1970s. Instead of schools with dozens of identical, boxy, fixed classrooms, which Gores referred to as the "egg-crate plan," schools were planned with large, open, flexible spaces that could adapt to changing educational needs. Walls were eliminated to accommodate a new approach to education referred to as open education or the open classroom, a system developed in the British primary schools and brought to the United States in the 1960s.

EFL's work in open plan schools was developed in response to changing pedagogical theory and practice. This held that children should be allowed to learn in ways suited to their individual differences and that school was best conducted by teachers working collaboratively with each other—that is, through team teaching. In practice, the traditional classroom boxes with desks lined up in rows often hampered teachers' efforts to work in teams and deploy children in the flexible and varied groupings necessary for this educational approach.

Sometimes these new open plans worked well; sometimes they didn't. They were new to school personnel, and much depended on staff training as well as on proper management of the immediate environment. But even though open plans didn't always work well, the design concept is still influential today for creating schools that have the flexibility to meet changing teaching and learning styles.

School Libraries

EFL's research and subsequent reports, led by Ralph Ellsworth, distinguished Director of Libraries at the University of Colorado, Boulder, were far reaching, and they significantly changed the concept, shape, and use of libraries across the education spectrum from kindergarten through graduate schools. In essence, this work described the library as the only part of the school building designed for individual inquiry and independent learning. As such, its design calls for ready access by users to all the carriers of knowledge, print and electronic, with appropriate provisions for their use. Moreover, to enable students to spend large blocks of time in libraries, the design criteria call for these spaces to be inviting, well lit, pleasing to the eye, with places where individuals can work alone or in self-selected groups. At the high school or college level, this might mean individual study carrels, flexible furniture arrangements, sofas and easy chairs; at the elementary levels, rugs on floors, bean-bag chairs, or a pillow-filled corner where small children could lounge during story time.

School Construction Systems Development

With an effort spearheaded by King, EFL awarded millions of grant dollars to building systems projects for schools. School Construction Systems Development (SCSD) was headed by an interdisciplinary team that included architect Ezra Ehrenkrantz as project director, latter joined by John Boice of the Stanford School Planning Laboratory. Together they led a team of school district superintendents, material suppliers, labor unions, builders, sociologists, and financial executives in developing a standardized method for constructing school buildings, and they established a program specifically for component manufacturers (O'Brien, 2000).

Ehrenkrantz and King made presentations across the country to convince school planners that, by combining their purchasing power and agreeing to use standardized building component subsystems for several schools, they could get individually designed facilities in much less time, of better quality, and at costs equal to or lower than schools built by traditional methods.

In a 1969 interview, Ehrenkrantz described the SCSD program this way:

> Buildings that are erected as part of the SCSD program offer a tremendous variety in terms of expression, design, and design philosophy. We see SCSD as the beginning of an evolution within the building industry—where options are available to architects and educators and where different levels of performance have known cost levels. I see SCSD as an approach towards better precision in the design process to determine what is wanted in a building and to develop the tools to utilize available resources in an optimal way (Ehrenkrantz 1969:55).

SCSD led to the design and manufacture of a coordinated series of components for the systems that make up a school building, including structural systems, HVAC (heating, ventilating, and air conditioning), overhead lighting, interior partitions, doors and windows, and lockers. External walls were not considered educationally significant and were not included in the SCSD system. Components were designed to meet performance specifications that reflected both the school districts' stated desires and the SCSD staff's judgment of educational needs.

California's SCSD program was successfully completed in 1967. EFL continued to support grants that helped Toronto and Montreal develop their own school building systems. Other states and cities, including Florida, Boston, and Detroit, adapted the original systems to their own requirements. Industrialized building systems were also developed for college housing and academic buildings. According to writer George Rand and architect Chris Arnold, "The SCSD process was clearly the major experimental building program of the sixties. The methods, procedures, and hardware systems developed as a result have had a profound influence on American design and construction" (Rand and Arnold 1979:52).

EFL Publications

From its inception, EFL carried on an active publishing program, following its Ford Foundation charter for the "dissemination of knowledge regarding educational facilities." It recognized that its efforts to produce superior facilities and equipment for education would have little impact if such developments were not communicated to architects, educators, governing boards, and the public.

These timely publications, available without charge, were mostly soft-covered pamphlets and books. Because they were well written, rigorously edited, lively and original in design, making much use of graphics—photos, drawings, and architectural plans—they appealed to professionals and laymen alike.

EFL's small staff included an architect, three or four persons for research and writing, and at times a consultant. EFL also enlisted professional writers whose work had come to their notice both in the field of education and elsewhere, as well as people who had particular expertise in the subject at hand. However, EFL officers and staff always had the final say. Often reports had more than one author, but the EFL voice was clear—no fancy prose, jargon, or dry, technical, or academic writing. In all, EFL publications included six series, four newsletters, and more than 100 individual reports on major areas of concern in educational facilities planning and development.

In addition to EFL's own publishing efforts, other organizations published and distributed hundreds of reports on EFL-sponsored projects or research activities. EFL's assistance also helped bring into print important works by individual authors in the field. Numerous books included articles by EFL staff. Films resulting from EFL-funded

efforts reached millions of viewers through television broadcasts and individual screenings.

Many of these publications are relevant today and are available at the EFL Archive located at the CRS Center at Texas A&M University *(http://taz.tamu.edu/~crscenter/index.html)* or from the ERIC Document Reproduction Services *(http://www.edrs.com)*.

EFL's Impact

Architect William Brubaker described school construction in the 1960s as dominated by the research and extension activities of EFL. He attributed the exciting partnership between it and the schools as having an impact on school design nationwide and in Canada. "Thousands of educators, planners, engineers, and architects were influenced by EFL, and that influence continues today" (Brubaker 1998:20).

In the process of evaluating EFL for the Ford Foundation in 1976, Armsey interviewed numerous architects, educators, and school administrators. Among their comments were (Armsey 1976:11–13):

- Schools all around the country look different and are different from the way they would have looked without EFL.
- EFL advanced the state of the art of school design and construction by a generation. It was not only what they did but what they stood for—objectivity.
- Architects can't get very far ahead of their clients; but EFL was outside both the client and the architect, and that was of great value. It fronted for the client, and it promoted aggressively.
- EFL's greatest single contribution was to institutionalize progressive thought in school construction and equipment. It forced educators to think about function and architects to think about how to build to carry out the function.
- EFL had a greater impact on educational facilities than any other single force in the history of American education.

Finally, Armsey himself is unequivocal in his evaluation. Referring to EFL's years under Gores' leadership, he said:

> EFL came along at the right time. It had a clearly stated, limited purpose; it was provided with adequate funds from a single source so that it didn't have to divert its energy, distort its program, or divide its time by scratching for funds elsewhere. It was headed by a single, highly competent leader over the entire period. It had a clarity and simplicity in purpose, consistency and competency in leadership, and adequacy and security in financial support. If that combination won't produce results, nothing will. (Armsey 1976:3)

EFL Publications and Films

Selected Reports

Educational Change and Architectural Consequences

The Cost of the Schoolhouse

High School: The Process and the Place

The Greening of the High School

Schoolhouse in the City

SCSD: The Project and the Schools

The School Library: Facilities for Independent Study in the Secondary School

Design for ETV: Planning for Schools with Television

Bricks and Mortarboards: A Report on College Planning and Building

The Graying of the Campus

Series

Profiles of Significant Schools—developments in the design of individual schools or school building types.

Case Studies of Educational Facilities—specific solutions to problems in school planning and design.

Technical Reports—topics of interest to specialists in architecture, engineering, and other technical areas.

Systems Reports—reports from the Building Systems Information Clearinghouse.

Community School Centers—how to create and manage buildings for community and school use.

Instructional Technology—profiles and case studies on the uses of computers, film, video, telephone, and other communications devices in colleges and universities: what works, what doesn't work, and why; developments and trends.

Newsletters

BSIC/EFL Newsletter—developments in the systems approach to building educational facilities.

College Newsletter—design questions for colleges and universities.

New Life for Old Schools—case studies on renovating existing school facilities.

Schoolhouse—financing, planning, designing, and renovating school facilities.

Films

To Build a Schoolhouse—shows trends in school design through tours of significant schools; narrated by Chet Huntley.

Room to Learn—describes the Early Learning Center in Stamford, Connecticut, an open plan early childhood school.

Exercise in Economy—shows the planning, construction, and operation of a geodesic-domed field house.

A Child Went Forth—focuses on inner-city schools and school building programs.

Many of these publications are relevant today and are available at the EFL Archive located at the CRS Center at Texas A&M University (http://taz.tamu.edu/~crscenter/index.html) *or from the ERIC Document Reproduction Services* (http://www.edrs.com)

References

The URLs herein were accurate on the date of publication.

Academy for Educational Development. 1978. *About EFL.* New York: Academy for Educational Development.

American School & University. 1971. "Building Ideas That Save Money: An In-depth Interview with Dr. Harold B. Gores and Alan C. Green of Educational Facilities Laboratories, Inc." *American School & University,* 43, No. 6 (February), pp. 13–32.

Armsey, James W. 1976. "A Commentary on a Series of Grants by the Ford Foundation to the Educational Facilities Laboratories, Inc. 1958–1975." New York: Ford Foundation.

Arnold, Chris, and George Rand. 1979. "Evaluation: A Look Back at the '60s' Sexiest System; SCSD and Two of Its End Products." *AIA Journal* 68, No. 4 (April), pp. 52–86.

Brubaker, C. William. 1998. *Planning and Designing Schools.* New York: McGraw-Hill, Inc.

Educational Facilities Laboratories (EFL). Annual Reports [various years]. New York: EFL

Ehrenkrantz, Ezra. 1969. "What's Happening to SCSD—and Why." *Nation's Schools* 83, No. 4 (April), pp. 55–57.

Graves, Ben E. 1993. *School Ways: The Planning and Design of America's Schools.* New York: McGraw-Hill, Inc.

Green, Alan C. 1969. *Environment for Learning: the 1970's.* Madison, Wisc.: ERIC Clearinghouse on Educational Facilities.

_____. 1975. "The Schoolhouse Revisited: Problems and Missed Opportunities." *Phi Delta Kappan* 56, No. 5 (January), pp. 360–62.

King, Cynthia B. November 19, 1997. Obituary notice for Jonathan King.

King, Jonathan. 1967. "The New Schoolhouse: A Tool Not a Container." *Changing Role of Teachers Required by Educational Innovations.* Berlin: Institut fur Bildungsforschung in der Max-Planck-Gesellschaft.

King, Jonathan, and Ruth Weinstock. 1970. "Schools in the 70s—the Case of the Relevant Schoolhouse." Paper presented at the National Association of Secondary School Principals Annual Convention, February 7, in Washington, D.C.

MacConnell, James D. 1988. "Stanford School Planning Laboratory." *Dr. Mac, Planner for Schools: Memoirs of My First 80 Years.* Palo Alto, Calif.: Johnson/Dole, pp. 124–45.

O'Brien, Michael, Ron Wakefield, and Yvan Beliveau. July 2000. "Industrializing the Residential Construction Site. Center for Housing Research, Appendix C: School Construction System Design (SCSD)—A Physical Integration Success Story." Washington, D.C.: U.S. Department of Housing and Urban Development.

Passantino, Richard J. 1999. Interview with author. November 3.

Weinstock, Ruth. 1999. Letter to author. October 4.

Resources

Educational Facilities Laboratories Archive. CRS Center for Leadership and Management in the Design and Construction Industry, College of Architecture, Texas A&M, College Station, Texas
http://taz.tamu.edu/~crscenter/index.html

Ford Foundation Archives. New York, N.Y.
http://www.fordfound.org

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